



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

April 6, 2015

Jeff Tomac
Whitman Ranger District
3165 10th Street
Baker City, Oregon 97814

Dear Mr. Tomac:

The EPA has reviewed the draft EIS evaluating the proposal to approve 28 mining Plans of Operation (POOs) in the Granite Creek Watershed encompassing both Wallowa Whitman and Umatilla National Forests in Oregon (EPA Project Ref: 00-014-AFS). Our review was conducted in accordance with EPA responsibilities under the National Environmental Policy Act and Section 309 of the Clean Air Act.

The DEIS evaluates the No Action Alternative and two action alternatives for approval of mining POOs. Alternative 2 reflects the POOs as submitted by the operators and Alternative 3 includes approval of operations with additional Forest Service requirements. Alternative 3 is identified as the agency's preferred alternative.

In June 2002, The Umatilla National Forest evaluated a portion of the mine proposals in a draft EIS. We understand that a final decision was not issued due to a number of outstanding issues. The Forest Service has now expanded the scope to include additional POOs located in Granite Area Watershed within the neighboring Wallowa-Whitman NF, and has conducted a more thorough analysis.

The EPA commented on the previous EIS raising significant issues regarding potential impacts to water quality and ESA-listed species (e.g., threatened mid-Columbia steelhead and Columbia River bull trout). The current DEIS includes more protective measures that address these resources, and the level of documentation regarding compliance with environmental laws and standards has been substantially improved. We are pleased with the inclusion of appendices describing individual POOs, the Forest Service requirements, and the availability of the Biological Assessment. These components of the document are very helpful in understanding the complexity of the 28 POOs and the predicted effects.

We support the additional Forest Service requirements and are pleased with the level of commitment regarding approving plans only after all relevant permits from the State of Oregon are obtained. Although we believe that the plans should be protective, we have concerns regarding water quality and impacts to ESA listed fish species and their habitat due to the already degraded watershed conditions from past mining. We believe many of these issues can be addressed by including additional detail regarding enforcement by the Minerals Administrator and commitment to monitor operations as well as

imposing any Terms and Conditions identified in the Biological Opinion. We also believe that the final EIS should clarify a number of items regarding environmental effects and monitoring. Our comments regarding these issues are further discussed in the attached detailed comments.

Based on our review and concerns with water quality and ESA listed species, we have assigned a rating of EC-2 (Environmental Concerns – Insufficient Information) to the DEIS. For your reference, a copy of the rating system used in conducting our review is enclosed.

We appreciate the opportunity to review the DEIS. If you have question about our comments, please contact me at (206) 553-1601 or by electronic mail at reichgott.christine@epa.gov, or you may contact Lynne Hood of my staff at (208) 378-5757 or electronic mail at hood.lynne@epa.gov.

Sincerely,

A handwritten signature in blue ink that reads "Christine B. Reichgott". The signature is fluid and cursive, with the first name "Christine" and last name "Reichgott" clearly legible.

Christine B. Reichgott, Manager
Environmental Review and Sediment Management Unit

EPA DETAILED COMMENTS GRANITE CREEK WATERSHED MINING PROJECT

GENERAL COMMENTS

LISTED AND SENSITIVE SPECIES

The DEIS describes the project area as having important habitat for a number of fish species, including threatened steelhead and bull trout and sensitive spring chinook salmon. According to the DEIS the watershed has been severely altered by dredging, hydraulic, placer and lode mining activities from the late 1890s through mid-century 1950s. The John Day River Basin is the last major waterway in the Northwest that has free runs of chinook salmon and steelhead trout. The basin supports the largest remaining stocks of native anadromous fish in eastern Oregon, largely influenced by unimpeded passage; there are no dams on the river in this basin.

Historic activities and present road networks have adversely impacted the riparian zone resulting in water quality conditions that violate Oregon's water quality standards due to high temperatures and sediment loads in at least half of surveyed streams. Preliminary determinations in the attached BA of the DEIS indicate that 12 of the 23 mining proposals "are likely to adversely affect" threatened mid-Columbian steelhead trout and 10 of the proposals "are likely to adversely affect" threatened Columbia River bull trout.

Section 7(a)(1) of ESA requires that federal agencies conserve (i.e., protect and restore) species listed as threatened or endangered and their designated critical habitats. We are concerned about adverse effects to listed species and recommend that the Forest Service take the necessary steps (e.g., changing POOs and adding mitigation measures, including identified Reasonable and Prudent Measures identified by the National Marine Fisheries Service and the U.S. Fish and Wildlife Service) to ensure that the action alternatives protect and restore listed species and their habitats. We recommend that the final EIS include the Biological Opinion and any recommended Terms and Conditions.

WATER QUALITY

The Granite Creek Watershed has been impaired by past activities that have altered stream channel morphology, hydrologic connectivity, reduced stream bank stability, and degraded vegetation. The water quality parameters affected in the watershed are stream temperature, heavy metals, and sediment. The EPA supports the additional requirements for specific POOs that are in the Forest Service's Water Resource Protection Measures and General Requirements. The EIS includes a high level of detail regarding plans and requirements and we believe that Alternative 3 includes many protective measures. Also, we are pleased with the inclusion of the Appendix describing each plan's compliance with PACFISH. However, we are concerned about impacts to water quality from temperature increases, sediment delivery, and influx of heavy metals. Ultimately, we believe that it is critical that operators adhere to protective requirements, that BMPs be properly implemented, and that the Forest Service clearly define their commitment to monitoring environmental responses to changes in land and water management.

Temperature

The DEIS states that the Forest Service has summer stream temperature data for 12 streams in the Granite Creek watershed. All of these streams have temperatures that exceed the applicable Oregon Department of Environmental Quality water quality standard of 53.6°F for bull trout spawning and rearing.

Table 2-5 lists five operations that would affect stream temperature. A Total Maximum Daily Load and a Water Quality Management Plan were developed for the John Day River Basin in 2010. As a result, streams were delisted for temperature. However, as noted in the DEIS, the delisting does not mean that stream temperatures now meet water quality standards. Rather, it means that feasible steps will be made to decrease elevated temperatures. Temperature increases can be caused by discharges and/or withdrawals. Our concerns regarding these causes are outlined below.

Discharge of Warm Water – Proposed operations have the potential to discharge water from settling ponds either from surface or subsurface flow. Table 5-5 identifies one plan, Old Eric 1&2, under Alternative 2, having potential to discharge warm water; no plans are listed as having potential to discharge warm water under Alternative 3. Appendix 7 “*Effects to Water Resources by Plan*,” states that Old Eric 1 &2 could have the potential to affect temperature from subsurface flow if water is left standing for multiple days due to the size of pond, unshaded condition, and its proximity to Granite Creek (15 feet). Please clarify whether or not there is potential for warm water discharge under Alternative 3, and make sure that document sections are consistent regarding this point.

Page 113 of the DEIS refers to section “*Water Quality: Clean Water Act, Section 401 (potential for a discharge)*” for a discussion on potential impacts from warm water discharge. However, this section does not discuss nor evaluate the potential for warm water discharge, and Table 3-12, “*Potential for Discharge*” does not list any operations discharging warm water. Again, we are unclear with actual potential for discharge and if so, the temporal and potential severity of impact. The EIS should clarify whether or not there would be an impact, discuss methods used to predict the effect, and quantify the predicted impact.

Withdrawal of Water - Eight of the 28 plans propose withdrawing water from small tributaries for use in placer operations. Five of those plans would potentially alter stream temperature (withdrawals at approx. 100 gpm). The DEIS states that all of these streams exceed ODEQ State temperature criteria, that these plans would not be in compliance with the John Day TMDL, and all of the subwatersheds are either functioning at risk or functioning at unacceptable risk.

Under Alternative 3, impacts are minimized by using Forest Service WQPMs, which limit withdrawals to the period July 1 through August 15. This timing occurs when streams temperatures are at their highest. The DEIS does not quantitatively analyze or qualitatively describe the intensity of the impact to stream temperature. We are concerned about water withdrawals that adversely affect stream temperatures, particularly in a watershed already affected by high temperatures. We are also concerned with the measure to cease withdrawals only when the stream is dry below the operation (page 115). We encourage the Forest Service to consider restricting withdrawals to periods of time that would reduce the potential to further degrade stream temperature. In the event that plans are approved that would not

comply with the TMDL, the EIS should discuss the regulatory framework for approving operations that are not in compliance with other regional and local regulations/directives.

Sediment

The DEIS evaluates sediment inputs from placer operations and suction dredge activities separately. Our comments below are organized similarly.

Placer Operations - Granite Creek and Bull Run Creek are 303(d) listed for sedimentation. Under Alternative 3, the number of plans that have potential to discharge high sediment loads is reduced from 16 plans to 2 plans - Blue Sky Run on Bull Creek and Belvadere on Olive Creek (not listed as impaired). We are pleased with the added WRPMs to reduce the potential for sediment delivery from operations.

The evaluation states that Blue Sky Run would not alter existing conditions because sediment would either move through as suspended load or settle out within 300 feet. However, Appendix 7 describes a number of potential pathways for sediment delivery. For example, for Blue Sky #3, there is a potential for bank failure, and the plan for Blue Sky #4 and Bill Run #1 includes a discharge due to “ambiguous” buffers and resulting uncertainty. The EIS should clarify the potential for sediment delivery, quantify the sediment loading, and further evaluate the effects on turbidity from suspended sediment. Given the uncertainty, the EIS should provide adaptive management measures/contingency measures that operators and the Forest Service would implement if failures occur or unanticipated releases of sediment occur.

Suction Dredge Operations- Alternative 3 includes eight plans that propose to suction dredge. Six of these plans are within essential fish habitat and four of these are within 303(d) listed streams for sediment (Table 4A-1). The DEIS states that suction dredging is prohibited on any stream segment that is listed as water quality limited. However, this prohibition does not apply to streams that were subject to mining under ODEQ’s 700-J permit prior to 2005 or to streams specifically authorized for mining under the 700 permit. We appreciate the inclusion of useful information regarding ODEQs permit. However, we are concerned with activities located in EFH and that are listed as impaired. Suction dredging on other forest districts are closed to suction dredging on impaired streams under EPA’s General Permit¹ or where ESA critical habitat exists without consultation with USFWS and NMFS (the Services collectively). The NPDES program in Oregon is delegated to ODEQ and we defer to their administration for their permit. However, we promote consistency of protective measures and recommend considering any additional plan-specific measures that ODEQ may believe is warranted. We also recommend that the final EIS include any Terms and Conditions imposed by the Services.

Heavy Metals

Four plans propose accessing mine adits as part of their activity. Under Alternative 2, three of the plans would have a potential for discharging heavy metals; under Alternative 3, no plans would release heavy metals due to application of Forest Service WRPMs and General Requirements. We support the WRPMs and testing material for heavy metals. We agree with the requirement to cease mining if heavy metals are present until a detailed plan is developed and approved by the Forest Service that demonstrates how heavy metals would be prevented from discharging to a stream. While we agree with

¹ US EPA. 2013. Authorization to Discharge under the NPDES for Small Scale Suction Dredge Placer Miners in Idaho. GP No.: IDG370000.

these stipulations, we are concerned with current discharges to water from mine adits. Page 86 of the DEIS states that “none of the adits discharging water have been tested for water quality.” We strongly encourage the Forest Service to develop a sampling plan and test water quality from mine adits to determine potential for contamination from the current discharge. This is necessary for understanding current conditions and quantifying potential impacts to water quality. We also recommend that the EIS include details of how material would be handled and tested (e.g., Forest Service approved lab).

Monitoring

The DEIS states that Forest Service Mineral Administrators would complete annual minerals inspections and review to determine if Forest Plan standards/guides and WRPMs are being met. The DEIS states that there would be an annual inspection of operations and that depending on complexity of the operation, some of these are inspected twice, if not more, during the operating season. We are pleased about the commitment of Forest Service staff to conduct onsite inspections. We believe that many of the operations should be inspected more than once annually, particularly during initial construction, run-off events, operation and maintenance of settling ponds, a period during water withdrawal, and sampling and testing of adits.

Table 2-4 lists “Annual Inspection Items.” We appreciate the summary of items and request that it include additional detail to provide a comprehensive list of items. For example, the document included observations by Forest Service staff of road related work such as stabilizing stream beds for fords, bridge construction, and other road activities. We recommend that this table also include the items mentioned in the paragraph above.

Consistency with State of Oregon Requirements

The DEIS references compliance with ODEQ and Oregon Department of State Lands requirements throughout the document. We agree that all necessary permits/approvals should be acquired prior to the Forest Service approving POOs. The document states that a number of operators would need to acquire a 401 certification from ODEQ. However, we are unclear whether the Forest Service would need to obtain a 401 certification for approval of activities potentially affecting water quality. We request that the USFS clarify their role regarding approvals and acquiring a 401 certification. We encourage the USFS to coordinate with ODEQ and DSL on approvals related to the POOs. It may be helpful to contact Sara Christensen, Water Quality Certification Coordinator for ODEQ at christensen.sara@deq.state.or.us.

It is our understanding that ODEQ’s Section 700-J permit expired December 2014. A new permit has been issued and will be effective beginning May 2015. The final analysis should reflect any updates/modifications and demonstrate how operations will comply with the new permit. We recommend that the final EIS include information on the permit and clearly identify permit changes (e.g., suction dredging and sediment).

WATERSHED RESTORATION

Because this project area has suffered from degraded conditions affecting water quality and habitat for listed species, we believe that the Forest Service should increase efforts to protect and restore aquatic resources. Table 3-1 includes past, ongoing and future activities in the watershed, many which improve fish passage and road conditions. We encourage the Forest Service to consider additional watershed

improvement projects and include projects that promote properly functioning riparian, habitat connectivity, and improved water quality on the Forests.

SPECIFIC COMMENTS

Biological Assessment, Table 20. The BA includes a list of 23 mine plans. The proposal is to approve 28 mine plans. It appears that operations such as Yellow Gold and Yellow Jacket were not included in the BA. All mine plans should be included in the effects analysis for ESA listed species or clarify why the five mine plans were eliminated from the ESA evaluation.

Table 3-36 directs reviewer to “see paragraph below Table 12.” Table 12 does not exist. Recommend including all pertinent information.

The DEIS describes stream fords related to Alternative 2- nine existing and two new and Alternative 3- eight existing and one new. The BA includes Table 15- eleven and nine fords respectively. This seems to be a discrepancy and it is unclear which document is accurate.

Appendix 4A, Page 5. Discussion regarding listed streams states that “suction dredging did occur on these streams between 1999 and 2005 and so is grandfathered in because continued suction dredging on these streams would not constitute a new load.” This paragraph is confusing because: (1) the John Day TMDL did not include sediment and therefore, how would calculated targets apply? and (2) because suction dredging occurred prior to streams being listed for sediment should not preclude them from consideration of effects. Please clarify and include these operations in the evaluation.

It is unclear if the plans in the BA are based on Alternative 2 or Alternative 3. Request clarification.

The maps in the document are difficult to decipher. For example the names of streams are not clear (very small), impaired streams are not identified, and they do not show operations within impaired streams or EFH. The final EIS should include maps that are easier to read and include more detail regarding operations and water quality.

Please include a list of acronyms.

**U.S. Environmental Protection Agency Rating System for
Draft Environmental Impact Statements
Definitions and Follow-Up Action***

Environmental Impact of the Action

LO – Lack of Objections

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objections

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 – Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.